

CLAIM AMENDMENTS

36. (Currently Amended) A method for preventing contamination of a field emission display device, said method comprising:

a) providing a cathode structure of a field emission display device, said cathode structure comprising an electron emitting structure disposed above one side thereof; and

b) disposing a substantially continuous barrier layer of substantially uniform thickness over said one side of said cathode structure, wherein said barrier layer is configured to prevent ~~migration of contaminants from said cathode structure into an active region of said field emission display device~~ substantial penetration of electrons through said barrier layer.

37. (previously presented) The method as recited in Claim 36 wherein said cathode structure comprises a cathode substrate of said field emission display device.

38. (previously canceled)

39. (previously presented) The method as recited in Claim 36 wherein said b) comprises disposing said barrier layer over said cathode structure such that said barrier layer has a thickness sufficient to prevent substantial penetration of said electrons therethrough.

40. (previously presented) The method as recited in Claim 36 wherein said b) comprises disposing a barrier layer over said cathode structure wherein

said barrier layer is selected from the group consisting of silicon dioxide, Al_2O_3 , CrO_x , ZnO , Si_3N_4 , SiO_2 , TaO_5 , Tin Oxide, ITO, ZrO_2 , Y_2O_3 , TiO_2 and MgO and combinations thereof.

41. (previously presented) The method as recited in Claim 36 wherein said b) comprises disposing a barrier layer of silicon dioxide to a thickness of approximately 100 nanometers over said substrate structure.

42. (currently amended) The method as recited in Claim 36 wherein said b) comprises disposing said barrier layer over said cathode structure wherein said barrier layer prevents migration of contaminants from said cathode structure into said field emission display device, said contaminants due to electron bombardment of said cathode structure.

43. (previously presented) The method as recited in Claim 36 wherein said b) comprises disposing said barrier layer over said cathode structure such that said barrier layer prevents migration of sodium from said substrate structure into said field emission display device.

44. (previously presented) The method as recited in Claim 36 wherein said b) comprises disposing an electrically conductive barrier layer over said cathode structure.

Claims 45-51 (previously canceled)

52. (previously presented) The method of Claim 36 wherein said cathode structure comprises high sodium glass.

53. (currently amended) A field emission display device comprising means for preventing migration of contaminants from a cathode structure into an active region of said field emission display device, said contaminants due to electron bombardment of said cathode structure.

54. (previously presented) The field emission display device of Claim 53 wherein said cathode structure comprises high sodium glass.

55. (previously presented) The field emission display device of Claim 53 wherein said preventing means comprises a substantially continuous barrier layer of substantially uniform thickness between said cathode structure and plurality of cathode emitters.

56. (previously presented) The field emission display device of Claim 55 wherein said barrier layer is configured to prevent substantial penetration of electrons from said cathode emitters into said cathode structure.

57. (currently amended) The field emission display device of Claim 55 wherein said barrier layer comprises a ~~material of a~~ material thickness and wherein said ~~material~~ barrier layer of said material thickness ~~are~~ is sufficient to prevent substantial penetration of electrons from said cathode emitters into said cathode structure.

58. (previously presented) The field emission display device of Claim 54 wherein said barrier layer comprises silicon dioxide about 100 nanometers thick.